



Instream Works - Construction or Other Activities in or Near Rivers, Lakes or Other Bodies of Water

Document Number: ECS0407A	Standard – Administrative	Applies To: Environmental Health and Safety
Revision Date: 2017/01/18 Revision: 1 Review Cycle: 3 Years	Document Owner (Title): Manager, Environmental Affairs	

Summary of Changes

Rev No.	Section Changed	Revision Made
1		Previous revisions not recorded

Scope

This standard applies to construction or other activities in or near rivers, lakes or other bodies of water.

Purpose

The purpose of this document is to set minimum standards for construction or other activities in, or near rivers, lakes, other water bodies or riparian zones on or adjacent to Suncor’s plant sites, and to ensure regulatory compliance. Examples of these activities include but are not limited to the construction of boat launches in the river, and dredging operations. In the past, approvals for these activities have been obtained under the Federal Fisheries Act, the Alberta Environmental Protection and Enhancement Act, the Alberta Water Act, and the Federal Navigation Protection Act. The conditions in any regulatory approval take precedence over this Standard.

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Approved By: Andrew Cummins, Manager, Environmental Affairs

Compliance

- Failure to comply with an Administrative Standard, without an approved deviation, may result in a hazardous situation which could result in:
 - Personnel injury or death
 - Harm to the environment
 - Equipment or property damage.
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Roles and Responsibilities

The following individuals and groups have the following roles and responsibilities:

- Document Owner**
 - Ensures this document is reviewed according to the required revision cycle.
 - Ensures the document is updated to accommodate changes to Suncor, provincial, and federal regulation.
 - Ensures the document is updated to mitigate risks found as the result of an incident.
 - Document Approver**
 - Ensures this standard is necessary and that it aligns with management and company direction.
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References

- [ECS0101A](#) – Spill Reporting
 - [ENP0001A](#) – Environmental Incident Reporting
 - [LSP1321A](#) – Environmental Compliance Exceedance Notification
 - [ECS0108A](#) – Environmental Reporting Requirements and Accountabilities
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Terms, Definitions and Acronyms

The following terms, definitions and acronyms are used in this standard:

- Industrial Runoff** Precipitation that falls on, or traverses disturbed areas of the plant, such as flows from site storm sewers, muskeg drainage and surface runoff from tree-cleared areas.
- Instream works** Construction or other activities in or near Rivers, Lakes or other waterbodies.
- Riparian Zone** Riparian zones are the areas bordering rivers and other bodies of surface water. They include the floodplain as well as the riparian buffers adjacent to the floodplain.

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Standard

1. Regulatory Requirements

Item	Description
1.1	Anyone conducting construction or other activities in or near rivers, lakes, other waterbodies, or riparian zones must contact EH&S Regulatory Approvals, to determine what regulatory approvals might be required or might already be in place. Regulatory approvals are generally required prior to starting construction. This can be a lengthy process.
1.2	If EH&S Regulatory Approvals determines that no regulatory approvals are required, and none are already in place, then the requirements set out in this Standard are recommended.
1.3	The conditions in any regulatory approval take precedence over the conditions in this Standard.

2. Operating Requirements

Item	Description
2.1	Areas of potential spills or leaks shall be dyked or contained in a manner that will protect the surrounding watershed, soils and groundwater from contamination.
2.2	The deposition of deleterious material on ice or in water source supplies is prohibited.
2.3	Suitable erosion control and sediment prevention measures shall be incorporated as required, for the duration of the project to prevent silt from entering the Athabasca River or any of its tributaries. The person responsible for the in-stream work shall use appropriate mitigation or isolation techniques to prevent erosion and siltation from occurring.
2.4	A minimum undisturbed buffer of 100 meters shall be maintained between any project activities and the Athabasca River north of Shipyard Lake, and a minimum undisturbed buffer of 300 meters between project activities and the Athabasca River shall be maintained south of Shipyard Lake.
2.5	Tributaries of the Athabasca: No in-stream work shall be conducted between April 16 th and July 15 th in any year in any tributaries of the Athabasca River, or their riparian zones.
2.6	Athabasca River: No in-stream work shall be conducted from September 16 to July 15 of the subsequent year, in the Athabasca River or its riparian zones.

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| 2.7 | The person responsible for the in-stream work, shall conduct in-stream work such that: <ul style="list-style-type: none"><li data-bbox="483 363 889 394">a. isolation techniques are used,<li data-bbox="483 415 1425 541">b. the Canadian Water Quality Guidelines for suspended solids are met; specifically, suspended solids resulting from construction activities shall not exceed 10 mg/L when background levels are less than 100 mg/L or 10% of background levels when background levels exceed 100 mg/L,<li data-bbox="483 552 1442 615">c. sampling of total suspended solids is done upstream and downstream of the construction site during and immediately following any in-stream activity, and<li data-bbox="483 625 1461 751">d. if the levels in condition 2.7(b) (when measured 100 metres downstream of the construction site) are exceeded, construction activities are temporarily suspended until appropriate mitigation measures are implemented to reduce the levels of suspended solids introduced into the water body. |
| 2.8 | When constructing instream work, the appropriate means shall be taken to: <ul style="list-style-type: none"><li data-bbox="483 825 1442 856">a. prevent siltation and erosion of water bodies resulting from the activities, and<li data-bbox="483 867 1445 930">b. reclaim the disturbed bed and banks of all water bodies and areas associated with the activities following completion of the works. |
| 2.9 | Only existing road crossings or temporary crossing structures shall be used by vehicles and equipment when crossing any water body. |
| 2.10 | Any berm, cofferdam, or pad built into the rivers shall be constructed using clean granular material, as free of silt or other fine material as possible, in such a way that no more than two thirds of the active channel width is restricted. |
| 2.11 | A qualified on-site environmental monitor shall be present during all instream construction works or undertakings. The monitor's report detailing: the nature of the works undertaken, the construction methods used, the mitigation measures employed and the effectiveness of those measures, and the results of any required monitoring, shall be provided to Suncor within 90 days of the completion of the works or undertakings. |
| 2.12 | Any modifications to the drainage, flow control, water diversion and conveyance systems must be made in consultation with Mine Engineering and with EH&S Regulatory Approvals, to ensure that appropriate Suncor authorizations and appropriate regulatory approvals, respectively, are in place. |
| 2.13 | The person responsible for the in-stream work, in consultation with EH&S Regulatory Approvals shall submit to Alberta Environment and Parks for review and written approval: <ul style="list-style-type: none"><li data-bbox="483 1623 1442 1707">a. at least 60 days before the beginning of construction, all detailed engineering plans and analysis reports for any major structure, all industrial runoff ponds; and<li data-bbox="483 1717 1461 1797">b. at least 90 days before the beginning of construction, plans and supporting information for all proposed dams and canals under the provisions of the <i>Water Act</i>. |

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| 2.14 | The person responsible for the in-stream work, in consultation with EH&S Environment and Regulatory, shall investigate all written complaints relating to allegations of surface water and groundwater interference as a result of the project operation within ten kilometres from the project. |
| 2.15 | Any pond considered to be a dam (i.e. volume >30,000 m ³ and height >2.5 m) must be approved prior to construction in consultation with EH&S Regulatory Approvals. Detailed engineering plans and supporting information on the ponds shall be submitted to Alberta Environment and Parks under the Dam and Canal Safety Regulation. |

3. Reporting Requirements

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| 3.1 | Deviations from licensed limits or conditions, or failure to complete required monitoring, must be reported as per ENP0001A in coordination with LSP1321A . |
| 3.2 | Required reporting of monitored stream parameters and equipment availability must be completed as detailed in standard ECS0108A , for inclusion in the Monthly and Annual Reports. |

End of Standard

Feedback: Please submit your feedback for this document to your Supervisor.	Comments on this document (Is this document up to date?):
Suggested Improvements: _____ _____ _____ _____	
Sign: _____ Date: _____ yyyy/mm/dd	
Print: _____	

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The following individuals have approved and signed this document.

UserName: Andrew Cummins (acummins)

Title: Mgr EH&S Enviro & Reg

Date: Monday, 27 February 2017, 01:04 PM Mountain Time

Meaning: Approver 1 Signed

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